

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A plant for the continuous washing of plastic material in a quantity of scales over a varying time, said plant comprising a washing apparatus equipped with at least one rotating stirrer having a varying rotation speed, and containing a washing fluid, at least one filtering unit connected to said washing apparatus for purifying said washing fluid, a device for feeding said scales of plastic material in a continuous way to said washing apparatus, a device for withdrawing said scales of plastic material in a continuous way from said washing apparatus and a plurality of conduits to connect in fluid communication said washing apparatus and said filtering unit with a circuit in which said washing fluid flows, and wherein said plant comprises means for continuously varying the time said scales remain in said washing apparatus as a function of the quantity of scales contained in said washing apparatus.
2. (previously amended) A plant according to Claim 1, wherein said rotating stirrer, said device for feeding said scales and said device for withdrawing said scales are operated by respective electric motors, and wherein said electric motor driving said rotating stirrer draws a current.
3. (previously amended) A plant according to Claim 2, wherein said means for varying the time said scales remain in said washing apparatus comprises at least one first control device acting to receive as input a data item representative of the current drawn by the motor driving said stirrer and to control the driving of said motors connected respectively to said device for feeding said scales and to said device for withdrawing said scales.
4. (previously amended) A plant according to Claim 3, additionally comprising at least one second control unit for varying the speed of rotation of said stirrer as a function of the quantity of scales contained in said washing apparatus.

5. (previously amended) A plant according to Claim 1 wherein said washing apparatus comprises a closed container and is surrounded by a heat-insulating covering shell to form a gap between an inside wall of said shell and an external wall of said container.

6. (previously amended) A plant according to Claim 5, additionally comprising means for circulating a heating fluid in said gap.

7. (previously amended) A plant according to Claim 1 wherein said washing fluid consists of an aqueous solution.

8. (previously amended) A plant according to Claim 1 additionally comprising a conduit of readmission that carries at least one fraction of the washing fluid purified by said at least one filtering unit to said device for withdrawing said scales from said washing apparatus, the remaining fraction of said fluid being reintroduced directly into said washing apparatus.

9. (previously amended) A plant according to Claim 8, additionally comprising at least one heat exchanger device located along said conduit of readmission to control temperature of said washing fluid by means of a heating fluid.

10. (previously amended) A plant according to Claim 8, additionally comprising at least one device located along said conduit of readmission for monitoring pH of said washing fluid.

11. (previously amended) A plant according to Claim 8, additionally comprising at least one station located along said conduit of readmission for adding one or more chemical products to said washing fluid.

12. (previously amended) A plant according to Claim 9, wherein said heating fluid consists of high temperature steam.

13. (previously amended) A plant according to Claim 1 wherein said at least one filtering unit comprises at least one fine-pore filtering element.

14. (currently amended) Method A method for the continuous washing of plastic material in a quantity of scales over a varying time, said method comprising,

- a) providing: i) means for feeding and the withdrawing of said scales of plastic material in a continuous way to a washing apparatus equipped with at least one rotating stirrer having a varying rotation speed, and containing a washing fluid, and, ii) means for continuously varying the time said scales remain in said washing apparatus as a function of the quantity of scales contained in said washing apparatus; and apparatus.
- b) washing said scales of plastic material over a varying time by acting on the quantity of scales fed to said washing apparatus and on the quantity of scales withdrawn from said washing apparatus.

15. (currently canceled) ~~A method according to Claim 14, further comprising varying the time said scales remain in said apparatus by acting on the quantity of scales fed to said washing apparatus and on the quantity of scales withdrawn from said washing apparatus.~~

16. (previously amended) A method according to Claim 14, further comprising varying the speed of rotation of said stirrer as a function of the quantity of scales contained in said washing apparatus.

17. (previously amended) A method according to Claim 14, characterized in that said washing apparatus comprises a substantially closed container in which said washing fluid and said scales are maintained at a substantially constant temperature by means of a heating fluid that circulates in contact with an external surface of said container.

18. (previously amended) A method according to Claim 14, further comprising purifying said washing fluid by means of a filtering unit comprising at least one fine-pore filtering element.

19. (previously amended) A method according to Claim 14, further comprising controlling temperature of said washing fluid leaving said filtering unit before its readmission into said washing apparatus.

20. (previously amended) A method according to Claim 14, further comprising controlling pH of said washing fluid and the by addition of chemical mixtures to said washing fluid leaving said filtering unit before its readmission into said washing apparatus.

21. (previously amended) A method according to Claim 14, further comprising readmitting at least one fraction of said washing fluid in counter-current with respect to flow of said scales in said device for withdrawing said scales from said washing apparatus.

22. (previously amended) A method according to Claim 14, characterized by maintaining a quantity of said washing fluid in said washing apparatus that is proportional to the quantity of scales present in said washing apparatus.